

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Thomas W. Nickerson
Serial No.: 09/871,444
Title: SYSTEM AND METHOD FOR DISPLAYING DYNAMIC PAGE CONTENT
IN A PAGE-CACHING BROWSER
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Examiner: Joseph E. Avellino
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APPELLANT'S BRIEF ON APPEAL

Sir:

This Appeal Brief is presented in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on March 17, 2008, from the Final Rejection of Claims 13, 14, 32, 33, and 36-51 of the above-identified application, as set forth in the Final Office Action mailed from the United States Patent and Trademark Office on December 17, 2008 (the "Final Office Action"). If any enclosed papers or fees are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned collect at (508) 616-9660, in Westborough, Massachusetts. Applicant hereby petitions for any extension of time, which is required to maintain the pendency of this case. If necessary, please apply any additional fees or credit overpayments to Deposit Account 50-3735.

APPELLANTS' BRIEF ON APPEAL

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1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, Oracle Corporation.

2. RELATED APPEALS AND INTERFERENCES

There are no known other prior or pending appeals, interferences, or judicial proceedings which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending Appeal.

3. STATUS OF THE CLAIMS

Claims 13, 14, 32, 33, and 36-51 are being appealed in the present proceeding. Claims 46-51 are rejected under 35 U.S.C. §101 and Claims 13, 14, 32, 33, and 36-51 are rejected under 35 U.S.C. §103(a).

4. STATUS OF AMENDMENTS

Applicant has not filed any amendments subsequent to final rejection.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Pursuant to 37 CFR §41.37(c)(v), the Applicant hereby provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal. The present invention provides for displaying dynamic page content in a page-caching browser while avoiding the display of unintended page content in the browser. Independent Claim 13 is drawn to a computer program product that can be used to avoid displaying unintended page content in a browser. Independent Claims 32 and 46 are each drawn to a method that can be used to avoid displaying unintended page content in a browser. Applicant herein first lists independent Claims 13, 32, and 46 and follows the claims with additional brief explanation of the subject matter. Support for computer program products such as claimed in Claim 13, embodying methods of the present invention, such as claimed in Claims 32 and 46, find support in the present specification at page 18, line 25 to page 19, line 5.

13. A computer program product, comprising:
a computer-readable memory device; and
computer-readable program code segments, stored on the computer-readable memory device, for:
- receiving, at a client having a local cache, input related to a request for content of a web page, the request including an address for the web page; and
 - in response to receiving the input:
 - determining, at the client, that there is content associated with the web page in the local cache;
 - inserting, at the client, a unique identifier into the address; and
 - transmitting the request with the inserted unique identifier to a server.
32. A method, comprising:
- receiving, at a client having a local cache, input related to a request for content of a web page, the request including an address for the web page; and
 - in response to receiving the input:
 - determining, at the client, that there is content associated with the web page in the local cache;
 - inserting, at the client, a unique identifier into the address; and
 - transmitting the request with the inserted unique identifier to a server.
46. A method, comprising:
- receiving, at a client, input related to a request for content of a web page, the request including an address for the web page; and
 - in response to receiving the input:
 - determining, at the client, whether to transmit the request to a server regardless of whether there is content associated with the address in a local cache; and
 - if the determination is to transmit the request to a server regardless of whether there is content associated with the address in a local cache:
 - inserting, at the client, a unique identifier into the address; and
 - transmitting the request, with the inserted unique identifier, to a server.

Exemplary embodiments of methods of the present invention are illustrated in Figure 4 and described in the text related to Figure 4. For example, at 600, a client 100 having a local cache 120 has received input related to a request for content of a web page, the request including an address for the web page, and the browser 110 at the client loads in a web page. Example requests are shown in Figure 2B as R1-R5. At 620, the browser determines, at the client, whether to transmit the request to a server regardless of whether there is content associated with the address in a local cache. Specification at page 16, lines 24-26 (“... the global reload flag is tested to identify whether the page content is being loaded from cache or from the server. ...”). If the determination is to transmit the request to a server regardless of whether there is content associated with the address in a local cache then the browser inserts a unique identifier into the address and transmits the request with the inserted identifier to a server at 695.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- I. The Examiner rejected Claims 46-51 under 35 U.S.C. §101, alleging the claims are not statutory.
- II. The Examiner rejected Claims 13, 14, 32, 33, and 36-51 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,289,804 issued to Lam (“Lam”) in view of U.S. Patent Publication No. 2002/0038350 issued to Lambert et al. (“Lambert”).

7. ARGUMENT

- I. The present invention as claimed in Claims 46-51 is statutory under 35 U.S.C. §101.

The burden is on the USPTO to set forth a prima facie case of unpatentability.

Guidelines for Subject matter Eligibility – OG Date: 22 November 2005 @ IV(B). The burden does not shift to the Applicant unless the Examiner identifies and explains in the record the basis for why a claim is for an abstract idea with no practical application. *Guidelines* @ IV(D).

In the Final Office Action, the Examiner provided the basis for the assertion that Claims 46-51 are not statutory at page 2 paragraph 3. The Examiner’s basis is as follows:

The method claim provides a conditional limitation that does not necessarily occur (i.e. “if the determination...”). As such, the result of this embodiment of the claim is the mere determination, which lacks a tangible or useful result. Correction is required.

- A. The Examiner has failed to set forth a prima facie case of unpatentability because the Examiner's rejection is inappropriately based on a piecemeal analysis of the claimed invention and not based on an evaluation of the claimed invention as a whole.

In evaluating whether a claim meets the requirements of §101, the claim must be considered as a whole. *AT & T Corp. v. Excel Communications Inc.*, 172 F.3d 1352, 50 USPQ2d 1147 (Fed. Cir. 1999) (“a mathematical algorithm may be an integral part of patentable subject matter such as a machine or process if the claimed invention *as a whole* is applied in a ‘useful’ manner,” citing *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998) and *In re Alappat*, 33 F.3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994) (emphasis added)). *Guidelines @ IV(C)* (“the claim must be considered as a whole”). The evaluation requires an examination of the contested claims to see if the claimed subject matter *as a whole* is a disembodied mathematical concept representing nothing more than a “law of nature” or an “abstract idea,” or if the mathematical concept has been reduced to some practical application rendering it “useful.” *AT & T*, 172 F.3d @ 1357, 50 USPQ2d @ 1451 (citing *In re Alappat*, 33 F.3d @ 1544, 31 USPQ2d @ 1557).

The Examiner has not considered each of the claims *as a whole*. Instead, the Examiner has asserted that if the conditional limitation (i.e., “if the determination ...”) does not occur, then the only thing left in the claimed invention to be analyzed under §101 is the determining. Applicant disagrees with this analysis. First, Applicant contends that an appropriate analysis under §101 of the claimed invention as a whole requires the whole conditional to be evaluated. The whole conditional includes both the situation when the conditional does not occur and the situation when the conditional does occur. Both these situations must be evaluated together because the claim as a whole includes both situations and excluding either situation from the analysis is removing a part of the claim from the whole of the claim.

Second, the Examiner is mistaken in asserting that when the conditional does not occur “then the only thing left in the claimed invention to be analyzed under §101 is the determining.” To the contrary, the receiving step of the claimed invention occurs in all situations and can not be ignored for the purposes of a §101 analysis. Applicant contends that the receiving step, and therefore, the claim as a whole is statutory.

- B. Claims 46-51 are statutory under 35 U.S.C. §101 even if the §101 analysis only evaluates the claims under specific circumstances during which the conditional limitation does not occur because the receiving step transforms the state of the client.

Under a proper §101 analysis, a claim should be reviewed to determine if the claim provides a transformation or reduction of an article to a different state or thing. *Guidelines @ IV(C)(2)(a)*. If such a transformation or reduction is found, the inquiry ends and the claim is found to meet the statutory requirement of §101. *Id.*

The receiving step of the presently pending claims transforms the state of the client. Prior to the receiving step the state of the client *does not* include the input and after the receiving step the state of the client *does* include the input. In the instant case, the claimed invention transforms the state of the client and, for at least this reason, the claimed invention as a whole is statutory. It should be noted that Applicant, in this section, is not contending that the claims are patentable because the receiving step transforms the state of the client. Applicant is contending that the claims are statutory under a §101 analysis because the receiving step, and therefore the claim as a whole, transforms the state of the client.

II. Claims 13, 14, 32, 33, and 36-51 are patentable over Lam and Lambert.

A claim composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently known in the prior art. *KSR International Co. v. Teleflex Inc. et al.*, 550 U.S. at 1396 (2007). Under §103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1 (1966). Against this background the obviousness or nonobviousness of the subject matter is determined. *Id.* It can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. *KSR* at 1396.

In the Final Office Action the Examiner states the following in support of the Examiner's obviousness rejection:

Referring to claim 13, Lam discloses a computer program product with a client with a local cache (e.g. abstract) which, in response to receiving client input for content of a web page will determine if there is a cache hit, then determine if the content should be retrieved from the server (i.e. hit with an invalid respond) and transmit the request to a server (col. 2, lines 5-10). Lam does not disclose that the system will insert a unique identifier into the address. In analogous art, Lambert

discloses another computer product for caching web pages which receives at a client input related to a request for content of a web page the request including an address for the web page (¶ 228-231); inserting a unique identifier at the client into the address and transmitting the request to a server (¶ 228-231). It would have been obvious to one of ordinary skill in the art to combine the teaching of Lam with Lambert in order to provide an efficient method of ensuring that the server request is directly from the server by inserting a unique identifier into the address in order to ensure that no stale copies are received by any other proxy servers which might have a stale copy of the data and would return that data instead of from the original content server, thereby guaranteeing that the returned data is a newly retrieved content object from the server.

Applicant agrees with the Examiner's assertion that Lam does not disclose that the system will insert a unique identifier into the address. Not only is there no such teaching in Lam, there is no suggestion or motivation in Lam to insert a unique identifier into the address. In fact, in at least some respects, Lam teaches away from the present invention as claimed.

- A. The present invention as claimed is patentable over Lam in view of Lambert because one of ordinary skill in the art at the time of the invention would be discouraged from combining Lam with Lambert to include the inserting step of the present invention or the determining step of Claim 46 and or claims depending from Claim 46.

Lam teaches a computer network read-ahead caching method. Lam's caching method attempts to anticipate what pages may be requested by a user so as to maximize the likelihood that a page will be in the cache when requested. In this manner, Lam teaches a method that increases the number of pages stored in a cache in an attempt to increase the number of cache hits. In Lam, "[I]f the page for the selected link is already cached, it is fetched from the cache and displayed almost instantly, so that the user does not experience the download delay." Column 3, lines 51-54. Applicant can find no teaching or suggestion in Lam of not fetching and displaying a page when the page is cached.

Not only does Lam not teach the inserting step of the present invention that enables the content of a local cache to be bypassed, there would be a disincentive for one of ordinary skill in the art to bypass the cache in Lam since Lam expressly teaches a method designed to increase the number of pages in the cache to try and increase the number of cache hits. In other words, modifying Lam to insert a unique identifier so as to avoid loading a page from a cache would defeat the purpose in Lam of trying to increase the number of cache hits. Accordingly, one of ordinary skill in the art would not only not be motivated to modify Lam as suggested by the Examiner, one of ordinary skill in the art would be discouraged from doing so.

Similarly, Lam does not teach, suggest, or motivate one of ordinary skill in the art to use the determining step of Claim 46. The determining step of Claim 46 determines whether to transmit the request to a server regardless of whether there is content associated with the address in a local cache. As discussed above, the teachings of Lam would discourage one of ordinary skill in the art to transmit a request to a server when there is content associated with the address in a local cache since the purpose in Lam is to increase the number of cache hits.

The present invention as claimed has a different purpose and motivation than Lam. The present invention is willing to increase the amount of traffic to servers by bypassing content in a local cache (i.e., avoiding the consequences of a cache hit) in order to prevent unintended page content from being displayed. Lam on the other hand teaches a read-ahead caching method to try to increase the number of cache hits, thereby reducing or eliminating waiting time experience by a user (i.e., reducing traffic to servers).

One of ordinary skill in the art at the time of the invention would be discouraged from combining Lam with Lambert or any other art to modify Lam to include the inserting step of the present invention or the determining step of Claim 46. Accordingly, Applicant respectfully requests this rejection be withdrawn.

B. The Examiner has failed to set forth a prima facie case of obviousness over Lam in view of Lambert because the Examiner's rejection is inappropriately based on a misstatement of the teachings in Lambert.

The present claims require the receiving step, the determining step, as well as the inserting step, all to be performed at the client having a local cache. The Examiner mistakenly asserts that "Lambert discloses ... inserting a unique identifier at the client into the address and transmitting the request to a server." Final Office Action at page 3 (citing Lambert at ¶228-231).

The invention in Lambert provides different services to a request received at a server depending on whether the requestor is a human or whether the requestor is a search engine. *Lambert* at ¶2 and ¶14. To provide these services Lambert has implemented an "Information Exposition and Control Engine" ("IXC Engine") 10, which runs on a Web server (i.e., *not* a client). *Lambert* at ¶23 ("[t]he system is intended to be integrated with technology that delivers Web pages and is invoked during the initial stages of the Web pages delivery process.") and ¶52. The IXC Engine 10 creates links 24 and distributes the links 24 across the Internet via Banners 26, Affiliate Links 28, search engine results 18, or E-mails 30. *Lambert* at ¶48.

One of the functions that the IXC Engine 10 can perform is to track visitors through a Web site. *Lambert* at ¶214. Lambert uses cache-busting in an attempt to overcome problems caused with image markers used in tracking. *Lambert* at ¶229. To overcome these problems, the IXC Engine 10 employs advanced markers, which use Java-script to generate what appears to be a unique marker reference for each access of the markers by appending a timestamp. *Lambert* at ¶230. That is, the timestamp is generated and inserted by the Java-script at the website where the image reference has been placed (i.e., not at the client) and then the IXC Engine returns the resulting unique IXC URL to the client where the client can insert the IXC URL into a cache that is local to the client.

Accordingly, the inserting step in Lambert takes place at a server and not at a client as asserted by the Examiner. Moreover, Lambert does not teach, suggest, or motivate one of ordinary skill in the art to create a timestamp at the client since the timestamp is used to track each access to an image reference and needs to be created at the time of access, which occurs at the website and not at the client. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

- C. The Examiner has failed to set forth a prima facie case of obviousness of Claims 14 and 33 over Lam in view of Lambert because the Examiner mistakenly relies on an “Official Notice” that adds nothing to the teachings of Lam and Lambert.

In the Examiner’s rejection of Claim 14 in item 6 on page 3 of the Final Office Action and the Examiner’s rejection of Claim 33 in item 7 on page 4 of the Final Office Action, the Examiner appears to demonstrate a misunderstanding of the present invention as claimed and, in fact, provides support that the present invention is *not* obvious by stating the following:

“Official Notice is taken that both the concepts and advantages of providing for determining whether the request is a ‘back’ request or a current page refresh is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the teaching of Lam-Lambert to include determining whether to service the page locally, since if the request is a back request, the page would have already been seen by the cache and would normally not be stale yet, thereby reducing unnecessary requests to the server.

In this manner, the Examiner is restating the prior art use of a cache and its benefits, which is taught in Lam, for example. That is, in the prior art such as Lam, unnecessary requests to a server can be reduced by recognizing that when a ‘back’ request or a ‘refresh’ request is received, the requested page, unless previously deleted from the cache, will be in the cache and can be loaded instead of requesting the page from the server.

This assertion by the Examiner demonstrates a misunderstanding of the present invention as claimed and provides support for the present invention because it argues that what the present does *not* do is expected and obvious. That is, the present invention as claimed does essentially the opposite of what the Examiner describes in this assertion as being expected and obvious. Whereas the prior art as described by the Examiner would load content from a cache when a ‘back’ request or ‘refresh’ request is received, the present invention as claimed avoids loading the content by inserting a unique address into the address. The present invention as claimed can address the observation that web pages containing stateful information may display unintended page content when cached content is available. E.g., *Specification* at page 7, lines 18-20. The present invention as claimed prevents the loading of unintended page content from a local cache into a browser by ensuring the uniqueness of the content request. E.g., *Specification* at page 7, lines 23-27. In this manner, the present invention may increase requests to the server to avoid loading a page in from a local cache that may display unintended page content if loaded from the cache. Thus, the present invention may increase requests to a server by bypassing content in a cache that may display undesired content if loaded. The prior art technology described in the Examiner’s assertion does exactly the opposite – it reduces unnecessary requests to a server by loading the page from the local cache.

The Applicant agrees with the Examiner’s assertion that “Lam-Lambert do not explicitly disclose that the system determining whether the request is from a refresh of the current page or for a request for a previously displayed web page” Because the Examiner’s “Official Notice” adds nothing to the teachings of Lam-Lambert, the Examiner’s rejection deficiently relies only on the teachings of Lam-Lambert, which the Examiner has stated does not disclose the present invention as claimed. Accordingly, Applicant respectfully requests that this rejection be withdrawn.

8. SUMMARY

Applicants respectfully submit that the claims are in condition for allowance. Accordingly, Applicants respectfully request that the Examiner's rejections be withdrawn and notification of allowance be issued.

Respectfully submitted,

Date: May 15, 2008

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APPENDIX I

The Claims Appendix

13. A computer program product, comprising:
a computer-readable memory device; and
computer-readable program code segments, stored on the computer-readable memory device, for:
receiving, at a client having a local cache, input related to a request for content of a web page, the request including an address for the web page; and
in response to receiving the input:
determining, at the client, that there is content associated with the web page in the local cache;
inserting, at the client, a unique identifier into the address; and
transmitting the request with the inserted unique identifier to a server.
14. The computer program product of claim 13, further comprising:
computer-readable program code segments, stored on the computer-readable memory device, for determining whether the received input comprises either an event requesting a currently-displayed web page to be refreshed or an event requesting navigation to a previously-displayed web page.
32. A method, comprising:
receiving, at a client having a local cache, input related to a request for content of a web page, the request including an address for the web page; and
in response to receiving the input:
determining, at the client, that there is content associated with the web page in the local cache;
inserting, at the client, a unique identifier into the address; and
transmitting the request with the inserted unique identifier to a server.

33. The method Claim 32, wherein determining whether there is content associated with the web page in the local cache comprises:

determining whether the received input comprises either an event requesting a currently-displayed web page to be refreshed or an event requesting navigation to a previously-displayed web page.

36. The computer program product of Claim 13, wherein the address includes a Universal Resource Locator (“URL”) to content of at least a portion of a web page.

37. The computer program product of Claim 13, wherein the address includes a query string, the unique identifier being appended to the address in the query string.

38. The computer program product of Claim 13, wherein the unique identifier includes a random number.

39. The computer program product of Claim 13, wherein the unique identifier includes a time stamp.

40. The computer program product of Claim 13, wherein the unique identifier comprises an alpha-numeric representation.

41. The method of Claim 32, wherein the address includes a Universal Resource Locator (“URL”) to content of at least a portion of a web page.

42. The method of Claim 32, wherein the address includes a query string, the unique identifier being appended to the address in the query string.

43. The method of Claim 32, wherein the unique identifier includes a random number.

44. The method of Claim 32, wherein the unique identifier includes a time stamp.

45. The method of Claim 32, wherein the unique identifier comprises an alpha-numeric representation.

46. A method, comprising:
- receiving, at a client, input related to a request for content of a web page, the request including an address for the web page; and
 - in response to receiving the input:
 - determining, at the client, whether to transmit the request to a server regardless of whether there is content associated with the address in a local cache; and
 - if the determination is to transmit the request to a server regardless of whether there is content associated with the address in a local cache:
 - inserting, at the client, a unique identifier into the address; and
 - transmitting the request, with the inserted unique identifier, to a server.
47. The method of Claim 46, wherein the address includes a Universal Resource Locator (“URL”) to content of at least a portion of a web page.
48. The method of Claim 46, wherein the address includes a query string, the unique identifier being appended to the address in the query string.
49. The method of Claim 46, wherein the unique identifier includes a random number.
50. The method of Claim 46, wherein the unique identifier includes a time stamp.
51. The method of Claim 46, wherein the unique identifier comprises an alpha-numeric representation.

APPENDIX II

Evidence Appendix

The is no pertinent evidence to be cited in this Appendix.

APPENDIX III

Related Proceedings Appendix

There are no known other prior or pending appeals, interferences, or judicial proceedings which may be related to, directly affect, be directly affected by, or have a bearing on the Board's decision in the pending Appeal.